

REMARKS

Claims 10-28 remain in the present application.

The drawings were objected to as failing to comply with 37 CFR § 1.84(p)(5) because they did not include the reference sign 34 mentioned in paragraphs [0037], [0038] and [0043] of the description.

Claims 25 and 28 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Claims 25-28 are improper dependent claims that cross different statutory classes of invention.

Claims 25 and 27 were rejected under 35 U.S.C. § 102(e) as being anticipated by Mayzel, U.S. Patent No. 6,896,970 B2 (“Mayzel”).

Claims 10-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicants’ Admitted Prior Art (“AAPA”) in view of Lips, U.S. Patent No. 6,524,725 B1 (“Lips”).

Claims 25 and 27 have now been amended to address the Office’s objections and rejections. New independent claims 29 and 30 have now been added. No new matter has been added. Reconsideration of the application in view of the above amendments and below remarks is respectfully requested.

Objection to the Drawings

The drawings were objected to as failing to comply with 37 CFR § 1.84(p)(5) because they did not include the reference sign 34 mentioned in paragraphs [0037], [0038] and [0043] of the description.

Applicants respectfully submit that reference sign 34 as mentioned in paragraphs [0037], [0038] and [0043] of the description is included in Fig. 2d.

Withdrawal of the objection to the drawings is respectfully requested.

Rejection of Claims 25 and 28 under 35 U.S.C. § 112, Second Paragraph

Claims 25 and 28 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Claims 25-28 are improper dependent claims that cross different statutory classes of invention.

Applicants thank the Examiner for pointing out the aforementioned claim language. Applicants have now amended claim 25 as an independent claim incorporating the method steps of independent claim 10. Applicants have also now amended claim 27 as an independent claim incorporating the method steps of independent claim 18. Claims 26 and 28 therefore now depend on independent claims 25 and 27, respectively. Applicants respectfully submit that claims 25 and 28 no longer cross different statutory classes of invention, thereby overcoming the Office's rejection.

Withdrawal of the rejections to claims 25 and 28 under 35 U.S.C. § 112, second paragraph is respectfully requested.

Rejection of Claims 25 and 27 under 35 U.S.C. § 102(e)

Claims 25 and 27 were rejected under 35 U.S.C. § 102(e) as being anticipated by Mayzel, U.S. Patent No. 6,896,970 B2 ("Mayzel").

Mayzel describes a process for costing a substrate with a coating giving a polished effect and improved corrosion existence. A coated manufacturing article 20 includes substrate 12, which is made of a metal or metal alloy. Onto metal substrate 12 is coated a base corrosion inhibiting layer 13 to provide corrosion protection to the underlying metal substrate 12. A polymeric coating 14 is coated onto corrosion inhibiting layer 13 to smooth out the surface of the article. A thin metal layer 16 is applied in atomized form onto polymeric coating 14. Outer corrosion inhibiting layer 18 is coated onto thin metal layer 16 to provide corrosion protection to metal layer 16. Top coat 19 is applied to outer corrosion inhibiting layer 18. An adhesion promoting layer 15 can alternatively be applied to polymeric coating 14 before the thin metal layer 16 is applied. Typical manufactured goods coated

with the coating include automotive rims, radiator grids, trophies, operating buttons, light fixtures and the like. See Mayzel, the abstract, column 2, lines 1-25 and Figs. 2-3.

Claims 25 and 27 each recite “a press-hardened component” “precoated with a first coating” and with “a second, anticorrosion coating”. Claims 25 and 27 further make clear that the first coating of the press-hardened component blank is directly covered with the second, anticorrosion coating.

Applicants respectfully submit that Mayzel does not teach or suggest a press-hardened component precoated with a first coating, which first coating is directly covered with a second, anticorrosion coating. In contrast, Mayzel at best describes a process for coating a metal substrate to give it a polished effect. Mayzel does not disclose the structural limitation of a press-hardened component, nor is a press-hardened component suggested. Furthermore, if it is assumed that the first coating in Mayzel is base corrosion inhibiting layer 13, then the second layer would be the layer directly covering said corrosion inhibiting layer 13, which in Mayzel is always polymeric coating 14. Polymeric coating 14 is not, however, an anticorrosion coating as is required by claims 25 and 27. The polymeric coating 14 in Mayzel is only “coated onto corrosion inhibiting layer 13 to smooth out the surface of the article.” See Mayzel, column 3, lines 5-7 and 17-19.

Because Mayzel is missing at least the above-recited features of a press-hardened component precoated with a first coating, which first coating is directly covered with a second, anticorrosion coating, as is required by each of claims 25 and 27, it is respectfully submitted that Mayzel cannot anticipate, nor render obvious, claims 25 or 27.

For at least the above reasons, reconsideration and withdrawal of the rejection to claims 25 and 27 under 35 U.S.C. § 102(e) based on Mayzel is respectively requested.

Rejection of Claims 10-28 under 35 U.S.C. § 103(a)

Claims 10-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicants' Admitted Prior Art (“AAPA”) in view of Lips, U.S. Patent No. 6,524,725 B1 (“Lips”).

Applicants' AAPA is described below.

Lips describes enameled steel and a process for enameling a zinc or zinc-alloy precoated steel surface. The process includes providing steel having a surface to be precoated

and enameled, applying a zinc or zinc-alloy coating having a thickness ranging from 1-30 µm to the surface of the steel to provide the zinc or zinc-alloy precoated steel surface, subjecting the zinc or zinc-alloy precoated steel surface to a heat pretreatment at a temperature of at least 500 °C, and enameling the zinc or zinc-alloy precoated steel surface with a vitreous enamel composition. See Lips, the abstract.

For the Office's convenience, Applicants will hereafter address each of independent claims 10 and 18 separately.

Independent claim 10 recites "a method for the production of a press-hardened component from a semifinished product made of unhardened, hot-workable steel sheet and precoated with a first coating" comprising "forming a component blank from the semifinished product by cold-forming; trimming the component blank at a margin to a marginal contour approximately corresponding to the component to be produced; heating and press-hardening the trimmed component blank in a hot-forming tool; and covering the press-hardened component blank with a second, anticorrosion coating."

Applicants' respectfully submit that none of AAPA and LIPS teach or suggest "trimming the component blank at a margin to a marginal contour approximately corresponding to the component to be produced" prior to "heating and press-hardening the trimmed component blank in a hot-forming tool" and then "covering the press-hardened component blank with a second, anticorrosion coating" as is required by independent claim 10 of the present application. The only possible AAPA, as defined in MPEP 2129, is DE 101 49 221 C1 which is discussed by Applicants in paragraph [0005] of the application as filed. DE 101 49 221 C1 is equivalent to US Publication No. 2003/0066582 ("Gehringhoff") which will hereinafter be referenced for the Office's convenience. Gehringhoff describes the process of:

- providing a sheet metal blank, pre-formed with one or more depressions;
- heat-treating the metal blank to a hardening temperature and forming in a press mold (and optionally cutting out the bottom of the depression while in the press mold);
- directly or indirectly cooling the tempered sheet metal blank; and
- optionally cutting or trimming the sheet metal article in a post-operation.

See Gehringhoff, paragraphs [0010] and [0014] to [0017]. A table comparing the features of independent claim 10 with the Gehringhoff is set forth below for the Office's convenience:

Step	Claim 10	Step	Gehringhoff
1	Forming a component blank from the semifinished product by cold-forming.	1	Providing a sheet metal blank, pre-formed with one or more depressions. (See Geringhoff, paragraph [0010])
2	Trimming the component blank at a margin to a marginal contour approximately corresponding to the component to be produced.		Not Disclosed
3	Heating and press-hardening the trimmed component blank in a hot-forming tool.	2	Heat-treating the metal blank to a hardening temperature and forming in a press mold. (See Geringhoff, paragraph [0014])
			Optionally cutting out the bottom of the depression while in the press mold. (See Geringhoff, paragraph [0015])
		3	Direct or indirect cooling. (See Gehringhoff, paragraph [0014])
4	Covering the press-hardened component blank with a second, anticorrosion coating.		Not Disclosed
			Optional post-operation cutting or trimming. (See Gehringhoff, paragraph [0017]).

As shown above, Gehringhoff does not disclose "trimming the component blank at a margin to a marginal contour approximately corresponding to the component to be produced" prior to "heating and press-hardening the trimmed component blank in a hot-forming tool" and then "covering the press-hardened component blank with a second, anticorrosion coating" as is required by independent claim 10 of the present application. In contrast, all trimming steps in Geringhoff follow the heat treatment to a hardening temperature. See Geringhoff, paragraphs [0014], [0015] and [0017]. Lips does not cure this defect. Lips describes applying a zinc or zinc-alloy coating to the surface of steel to provide the zinc or zinc-alloy precoated steel surface, subjecting the zinc or zinc-alloy precoated steel surface to a heat pretreatment, and enameling the zinc or zinc-alloy precoated steel surface with a vitreous enamel composition. See Lips, the abstract. Lips does not teach or suggest "trimming the component blank at a

margin to a marginal contour approximately corresponding to the component to be produced” prior to “heating and press-hardening the trimmed component blank in a hot-forming tool” and then “covering the press-hardened component blank with a second, anticorrosion coating” as is required by independent claim 10 of the present application.

The Office states that the AAPA discloses the following method steps: “forming a component blank from the semi-finished product by cold forming; trimming the component blank at a margin to a marginal contour approximately corresponding to the component to be produced; heating and press-hardening the trimmed component blank in a hot-forming tool.” See the Office Action dated March 17, 2010, Detailed Action, page 4, lines 4-7. Applicants respectfully submit that neither the prior art cited in the application, Geringhoff, nor the application as filed recite the aforementioned steps.

Applicants further respectfully submit that the Office has failed to make even a *prima facie* case of obviousness. The Office has here failed to resolve the level of ordinary skill in the pertinent art as the United States Supreme Court required in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). See MPEP 2141. Applicants further submit that, once the level of ordinary skill in the pertinent art has been resolved, that the Office must then then provide a rational underpinning for a person of ordinary skill in the art to combine Geringhoff with Lips; the United States Supreme Court having held that “rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1396 (2007) quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). See MPEP 2142 and 2143.01 IV. The required articulated reasoning with some rational underpinning has not here been made because the level of ordinary skill in the pertinent art has not been resolved.Independent claim 18 recites “a method for the production of a press-hardened component from a semifinished product made of unhardened, hot-workable steel sheet and precoated with a first coating” comprising “trimming the component blank at a margin to a marginal contour corresponding to the component to be produced” and then “covering the press-hardened component blank with a second, anticorrosion coating.”

Applicants’ respectfully submit that none of AAPA and LIPS teach or suggest “trimming the component blank at a margin to a marginal contour corresponding to the

component to be produced” and then “covering the press-hardened component blank with a second, anticorrosion coating” as is required by independent claim 18 of the present application. AAPA/Gehringhoff describes the process of:

- providing a sheet metal blank, pre-formed with one or more depressions;
- heat-treating the metal blank to a hardening temperature and forming in a press mold (and optionally cutting out the bottom of the depression while in the press mold);
- directly or indirectly cooling the tempered sheet metal blank; and
- optionally cutting or trimming the sheet metal article in a post-operation.

See Gehringhoff, paragraphs [0010] and [0014] to [0017]. A table comparing the features of independent claim 18 with the Gehringhoff is set forth below for the Office’s convenience:

Step	Claim 18	Step	Gehringhoff
		1	Providing a sheet metal blank, pre-formed with one or more depressions. (See Geringhoff, paragraph [0010])
1	Heating and press-hardening the semifinished product in a hot-forming tool so as to define a component blank.	2	Heat-treating the metal blank to a hardening temperature and forming in a press mold. (See Geringhoff, paragraph [0014])
2	Trimming the component blank at a margin to a marginal contour corresponding to the component to be produced.		Not Disclosed
			Optionally cutting out the bottom of the depression while in the press mold. (See Geringhoff, paragraph [0015])
		3	Direct or indirect cooling. (See Gehringhoff, paragraph [0014])
			Optional post-operation cutting or trimming. (See Gehringhoff, paragraph [0017]).
3	Covering the press-hardened component blank with a second, anticorrosion coating.		Not Disclosed

As shown above, Gehringhoff does not disclose “trimming the component blank at a margin to a marginal contour corresponding to the component to be produced” and then “covering the press-hardened component blank with a second, anticorrosion coating” as is required by independent claim 10 of the present application. While Geringhoff discloses two optional cutting steps, none of said steps require that the component blank be trimmed at a margin to a marginal contour corresponding to the component to be produced as is required by claim 18 of the present invention. Lips does not cure this defect. Lips describes applying a zinc or zinc-alloy coating to the surface of steel to provide a zinc or zinc-alloy precoated steel surface, subjecting the zinc or zinc-alloy precoated steel surface to a heat pretreatment, and enameling the zinc or zinc-alloy precoated steel surface with a vitreous enamel composition. See Lips, the abstract. Lips does not teach or suggest “trimming the component blank at a margin to a marginal contour corresponding to the component to be produced” and then “covering the press-hardened component blank with a second, anticorrosion coating” as is required by independent claim 10 of the present application. Applicants stress that the zinc coating in Lips is the first coating while the enamel coating is the second coating. See Lips, the abstract, the examples 1-4 and claim 1. As best understood, the Office is here using the first coating as taught by Lips as the second, anticorrosion coating in the present application. The application of the first coating as the second, anticorrosion layer is not, however, taught or suggested by Lips. Applicants note as background information that the press-hardened components of the present invention are intended for use in, for example, vehicles. See paragraph [0043] of the application as filed. If the Lips teaching is, however, applied in context, i.e., coating the press-hardened components of the present application with enamel as a second, anticorrosion coating, such enamel-coated press-hardened components could not be welded or otherwise incorporated into a vehicle, thus destroying their intended use. In contrast, the enameled products in Lips find their use in, for example, various household appliances such as washing machines and construction materials. See Lips, column 1, lines 33-37. The Applicants therefore submit that a person skilled in the art seeking to produce a press-hardened component for use in vehicles would therefore not even have reviewed prior art relating to household appliances and construction materials when attempting to solve the problem of the present invention.

The Office states that the AAPA discloses the following method steps: “heating and press-hardening the semi finished product in a hot-forming tool so as to define a component blank; and trimming the component blank at a margin to a marginal contour corresponding to the component to be produced.” See the Office Action dated March 17, 2010, Detailed Action, page 4, lines 14-16. Applicants respectfully submit that neither the prior art cited in the application, Geringhoff, nor the application as filed recite the aforementioned steps.

Applicants further respectfully submit that the Office has failed to make even a *prima facie* case of obviousness. The Office has here failed to resolve the level of ordinary skill in the pertinent art as the United States Supreme Court required in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). See MPEP 2141. Applicants further submit that, once the level of ordinary skill in the pertinent art has been resolved, that the Office must then provide a rational underpinning for a person of ordinary skill in the art to combine Geringhoff with Lips; the United States Supreme Court having held that “rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1396 (2007) quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). See MPEP 2142 and 2143.01 IV. The required articulated reasoning with some rational underpinning has not here been made because the level of ordinary skill in the pertinent art has not been resolved.

Because each of AAPA/Gehringhoff and Lips are missing at least the above-recited features of independent claims 10 and 18, it is respectfully submitted that any combination of AAPA/Gehringhoff and Lips, to the extent proper, could not render independent claims 10 and 18, or any of their respective dependent claims, obvious.

For at least the above reasons, reconsideration and withdrawal of the rejection to claims 10-28 under 35 U.S.C. § 103(a) based on respective combinations of AAPA/Gehringhoff and Lips is respectively requested.

New Claims 29 and 30

Applicants submit new independent claims 29 and 30 for the Office's consideration. New independent claim 29 is based on independent claim 10 while new independent claim 30 is based on independent claim 18. Both of new independent claims 29 and 30 further define the first coating to comprise "at least one of aluminum, an aluminum alloy and an aluminum-silicon alloy". A basis therefor is set forth in, for example, paragraphs [0015] and [0026] of the application as filed. Both of new independent claims 29 and 30 provide that "the covering is performed by at least one of a thermal diffusion with the second, anticorrosion coating comprising at least one of zinc and a zinc alloy, and a hot galvanizing with the second, anticorrosion coating comprising at least one of zinc, a zinc alloy and zinc chloride." A basis therefore is set forth in, for example, paragraphs [0037] and [0040] of the application as filed.

Applicants submit that each of new independent claims 29 and 30 are patentable for the same reasons that independent claims 10 and 18 are.

CONCLUSION

In view of the above amendments, Applicants believe the pending application is in condition for allowance.

It is believed that no fee(s) are required for this submission except for the \$ 810.00 petition fee to revive an unintentionally abandoned application applicable pursuant to 37 CFR § 1.137(b) to a small entity being filed together herewith. Should the U.S. Patent and Trademark Office determine that additional fees are owed or that any refund is owed for this application, the Commissioner is hereby authorized and requested to charge the required fee(s) and/or credit the refund(s) owed to our Deposit Account No. 50-5256.

Favorable action is earnestly solicited.

Dated: September 19, 2011

Respectfully submitted,

By Norman B. Thot
Norman B. Thot

Registration No.: 47,993
PATENT LAW OFFICES OF
DR. NORMAN B. THOT
P.O. Box 10 17 56
40837 Ratingen / Germany
(+49 2102) 168928-0
(+49 2102) 168928-20 (Fax)
Attorney For Applicants